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NOTICE OF ALLOWANCE AND FEE(S) DUE

2292 7590 04/09/2008 BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747 EXAMINER

PATEL, REEMA

ART UNIT PAPER NUMBER

2812

DATE MAILED: 04/09/2008

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. | |
|---|-------------|----------------------|---------------------|------------------|--|
| 10/550,016 | 07/24/2006 | Toyoki Kunitake | 2870-0305PUS1 | 8054 | |
| TITLE OF INVENTION: PROCESS FOR PRODUCING DIELECTRIC INSULATING THIN FILM, AND DIELECTRIC INSULATING MATERIAL | | | | | |

| APPLN. TYPE | SMALL ENTITY | ISSUE FEE DUE | PUBLICATION FEE DUE | PREV. PAID ISSUE FEE | TOTAL FEE(S) DUE | DATE DUE |
|----------------|--------------|---------------|---------------------|----------------------|------------------|------------|
| nonprovisional | NO | \$1440 | \$300 | \$0 | \$1740 | 07/09/2008 |

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION NOT THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 1SI. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and I/2 the ISSUE FFE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

or Fax (571)-273-2885

| appropriate. All further indicated unless corrects maintenance fee notifica | correspondence includir ed below or directed oth | ng the Patent, advance on herwise in Block 1, by (a | rders and notification of n a) specifying a new corres | naintenance fees wi pondence address; | ill be i and/or | mailed to the current (b) indicating a sepa | correspondence address arate "FEE ADDRESS" f |
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| CURRENT CORRESPOND | ENCE ADDRESS (Note: Use Bi | | nane | rs Each additional | paper | can only be used for icate cannot be used for such as an assignment ling or transmission. | or domestic mailings of the for any other accompanying at or formal drawing, mu |
| PO BOX 747 | 7590 04/09 ART KOLASCH CH, VA 22040-0747 | & BIRCH | Lhe | Cert | ificate | of Mailing or Trans | mission g deposited with the Unite st class mail in an envelor above, or being facsimi ate indicated below. |
| | | | | | | | (Depositor's name |
| | | | <u> </u> | | | | (Signature |
| | | | | | | | (Date |
| APPLICATION NO. | FILING DATE | | FIRST NAMED INVENTOR | | ATTO | RNEY DOCKET NO. | CONFIRMATION NO. |
| 10/550,016 TITLE OF INVENTION | 07/24/2006 E: PROCESS FOR PROE | DUCING DIELECTRIC I | Toyoki Kunitake NSULATING THIN FILM | I, AND DIELECTR | | 870-0305PUS1 SULATING MATER | 8054 IAL |
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| EXAM | IINER | ART UNIT | CLASS-SUBCLASS | | | | |
| PATEL, | REEMA | 2812 | 438-758000 | • | | | |
| "Fee Address" ind PTO/SB/47; Rev 03-0 Number is required. 3. ASSIGNEE NAME A PLEASE NOTE: Unl recordation as set fort | ondence address (or Cha 3/122) attached. ication (or "Fee Address 12 or more recent) attach ND RESIDENCE DATZ less an assignce is ident h in 37 CFR 3.II. Comp | nge of Correspondence "Indication form ed. Use of a Customer A TO BE PRINTED ON 2 | 2. For printing on the p (1) the names of up to or agents OR, alternative (2) the name of a single registered attorney or a 2 registered patent atto listed, no name will be THE PATENT (print or typdata will appear on the p. T a substitute for filing an | 3 registered patent rely, e firm (having as a agent) and the name meys or agents. If n printed. ec) stent. If an assigne assignment. | members of uponam | er a 2 | ocument has been filed fo |
| | riate assignee category or | categories (will not be pr | | Individual 🚨 Co | porati | on or other private gro | oup entity 🚨 Governmen |
| 4a. The following fee(s) Issue Fee Publication Fee (N Advance Order - | vo small entity discount p | | o. Payment of Fee(s): (Plea A check is enclosed. Payment by credit can The Director is hereby overpayment, to Depo | d. Form PTO-2038 | is atta | ched. | shown above) ficiency, or credit any n extra copy of this form). |
| | s SMALL ENTITY state | is. See 37 CFR 1.27. | ☐ b. Applicant is no long | | | | |
| NOTE: The Issue Fee an interest as shown by the | d Publication Fee (if req records of the United Sta | uired) will not be accepted tes Patent and Trademark | d from anyone other than to Office. | he applicant; a regis | tered a | ittorney or agent; or th | ne assignee or other party |
| Authorized Signature | | | | Date | | | |
| Typed or printed name | | | | Registration No | | | |
| This collection of inform an application. Confiden submitting the complete this form and/or suggests Box 1450, Alexandria, V Alexandria, Virginia 223 | nation is required by 37 C tiality is governed by 35 d application form to the ions for reducing this but 'irginia 22313-1450. DC k13-1450. | FR 1.311. The informatic U.S.C. 122 and 37 CFR USPTO. Time will vary rden, should be sent to the ONOT SEND FEES OR (| on is required to obtain or r 1.14. This collection is est depending upon the indiv e Chief Information Office COMPLETED FORMS TO | etain a benefit by th imated to take 12 n idual case. Any cor r, U.S. Patent and 1 of THIS ADDRESS. | e publ inutes nment: l'radem SENI | ic which is to file (and to complete, includir s on the amount of tin ark Office, U.S. Dep O TO: Commissioner | d by the USPTO to proces ng gathering, preparing, ar me you require to comple artment of Commerce, P.G for Patents, P.O. Box 1450 |

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PTOL-85 (Rev. 08/07) Approved for use through 08/31/2010.



UNITED STATES PATENT AND TRADEMARK OFFICE

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| 2292 75 | 90 04/09/2008 | | EXAM | UNER | |
| BIRCH STEWAR | RT KOLASCH & B | PATEL, REEMA | | | |
| PO BOX 747 | | | ART UNIT | PAPER NUMBER | |
| FALLS CHURCH, | VA 22040-0747 | | 2812 | | |
| | | | DATE MAILED: 04/09/2008 | | |

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 8 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 8 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

Notice of Allowability

| Application No. | Applicant(s) |
|-----------------|-----------------|
| 10/550,016 | KUNITAKE ET AL. |
| Examiner | Art Unit |
| Poomo Potol | 2012 |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address-All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included
herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. THIS
NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS. This application is subject to withdrawal from issue at the initiative
of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

- 1. This communication is responsive to amendment filed 2/29/08.
- The allowed claim(s) is/are 1 and 6.
- 3. Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a)

 All b)

 Some* c)

 None of the:
 - 1. T Certified copies of the priority documents have been received.
 - 2. Certified copies of the priority documents have been received in Application No.
 - Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
 - * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDOMMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

- 4. A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
- 5. CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) Thereto or 2) to Paper No./Mail Date
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

 DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- 1. Notice of References Cited (PTO-892)
- 2. Notice of Draftperson's Patent Drawing Review (PTO-948)
- Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date
- Examiner's Comment Regarding Requirement for Deposit of Biological Material
- 5. Notice of Informal Patent Application
- Interview Summary (PTO-413),
 Paper No./Mail Date .
- 7.

 Examiner's Amendment/Comment
- 8. \boxtimes Examiner's Statement of Reasons for Allowance
- 9. 🔲 Other _____.

/Michael S. Lebentritt/ SPE-AU 2812 Application/Control Number: 10/550,016

Art Unit: 2812

DETAILED ACTION

Allowable Subject Matter

Claims 1 and 6 are allowed.

2. The following is an examiner's statement of reasons for allowance: The prior art of record and to the examiner's knowledge does not teach or render obvious the instant invention, particularly characterized in claim 1 by the limitation of adsorbing a rare earth metal ion onto the hydroxyl group of the metal oxide formed in step in a previous step, removing excess rare earth metal ion, and then hydroxylating the adsorbed rare earth metal ion. Claim 6 depends on claim 1.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Reema Patel whose telephone number is (571)270-1436. The examiner can normally be reached on M-F, 8:00-4:30 ET.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Lebentritt can be reached on 571-272-1873. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Art Unit: 2812

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Reema Patel/

Examiner, Art Unit 2812

/Michael S. Lebentritt/

Supervisory Patent Examiner, Art Unit 2812